

WHAT IS CLAIMED IS:

1. A system for multiple camera broadcasting over the internet to a user's P.C. comprising:

a plurality of television content providers located at different venues throughout the world, each content provider having multiple video cameras already installed at a particular venue in use for commercial television broadcasting;

a parallel lead from each such installed video camera;

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over internet delivery channels;

a streaming server coupled to said encoders; and

graphical user interface software stored at said streaming server, and available to a user over the internet, said interface software interactively providing a high resolution video signal to at least one of the P.C. display windows and simultaneously one or more lower resolution video signals for plural smaller monitor displays on the P.C. display.

2. A system for multiple camera broadcasting over the internet comprising:

a plurality of television content providers located at different venues throughout the world, each content provider having multiple video cameras already installed at a particular venue in use for commercial television broadcasting;

a parallel lead from each such installed video camera;

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over internet delivery channels;

a high bandwidth network coupled to said encoder and accessible over the internet;

front-end human interface software interactively providing a high resolution video signal to at least one of the P.C. display windows from said high bandwidth network and simultaneously one or more lower resolution video signals for plural smaller monitor displays on the P.C. display from said high bandwidth network.

each user P.C. adapted to simultaneously show the high resolution video output from at least one of said television content provider cameras and a plurality of lower resolution video outputs from a plurality of said television content provider cameras.

3. A system for multiple cameras broadcasting over the internet comprising:

a television content provider having multiple video cameras already installed in several locations at a particular venue and in use for commercial television broadcasting;

a parallel lead from each such installed video camera; and

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over the internet to a user P.C.

4. The method for providing to a user P.C. an athletic game, musical, theatrical or like event with simultaneous interactive access to all of the video cameras in use at said event comprising the steps of:

producing at least one high resolution and one low resolution signal from each of said video cameras compatible for delivery over internet delivery channels,

transmitting said low and high resolution video signals to the user's P.C. over the internet, and

providing the user's P.C. with the interactive display of any of said high resolution signals to a larger display region of the P.C. display and all of the plurality of low resolution signals for display on smaller monitor portions of the

P.C. display so that the user is simultaneously provided in substantially real time with the video outputs from all of said video cameras.

5. A P.C. display for providing a user P.C. with a graphical user interface for viewing a televised event for several different television camera angles;

5 a larger screen display for selectively viewing one televised signal in high resolution on said P.C. display, and

a plurality of smaller screen displays for viewing the same event on a plurality of smaller low resolution displays on said P.C. display.

6. A P.C. display for providing a user P.C. with an interactive front-end human interface (FHI) for viewing a televised event from several different television camera angles;

a companion display provided on said P.C. display showing where said cameras are located; and

15 providing the viewer over the internet with high resolution access to one of said video cameras and simultaneous low resolution access to the remainder of said video cameras.

7. A system for multiple camera broadcasting over the internet comprising:

20 a plurality of content providers located at different venues throughout the world, each content provider having multiple video cameras at a particular venue in use for private or commercial content broadcasting;

a parallel feed from each such installed video camera;

25 an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over internet delivery channels;

a streaming server coupled to said encoders; and

30 front-end human interface (FHI) software stored at said streaming server, and available to a user over the internet, said interface software interactively providing a high resolution video signal to at least one of the display windows and simultaneously one or more lower resolution video signals for plural smaller monitor displays on video display.

8. A system for multiple camera broadcasting over the internet comprising:  
a plurality of content providers located at different venues throughout the world, each content provider having multiple video cameras already installed at a particular venue in use for private or commercial broadcasting;

5 a parallel feed from each such installed video camera;

an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over internet delivery channels;

10 a high bandwidth network coupled to said encoder and accessible over the internet;

front-end human interface (FHI) software interactively providing a high resolution video signal to at least one of the video display windows from said high bandwidth network and simultaneously one or more lower resolution video signals for plural smaller monitor displays on the video display from said high bandwidth network.

15 each user video displays adapted to simultaneously show the high resolution video output from at least one of said content provider cameras and a plurality of lower resolution video outputs from a plurality of said content provider cameras.

20 9. A system for multiple cameras broadcasting over the internet comprising:

a television content provider having multiple video cameras already installed in several locations at a particular venue and in use for private or commercial broadcasting;

25 a parallel feed from each such installed video camera;

an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over the internet to a user video display.

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10. The method for providing to a user's video display an athletic game, musical, theatrical or any live or recorded public or private event with simultaneous interactive access to all of the video cameras in use at said event comprising the steps of:

5 producing at least one high resolution and one low resolution signal from each of said video cameras compatible for delivery over internet delivery channels,

transmitting said low and high resolution video signals to the user's video display over the internet, and

10 providing the user's video display with the interactive display of any of said high resolution signals to a larger display region of the display and all of the plurality of low resolution signals for display on smaller monitor portions of the video display so that the user is simultaneously provided in substantially real time with the video outputs from all of said video cameras.

11. A video display for providing a user display with an interactive front-end human interface (FHI) for viewing from one or more different video camera angles;

a larger screen display for selectively viewing one video signal in high resolution on said video display, and

20 a plurality of smaller screen displays for viewing the same event on a plurality of smaller low resolution displays on said video display.

12. A video display for providing a user display with an interactive front-end human interface (FHI) for viewing a televised event from several different television camera angles;

25 a companion display provided on said display showing where said cameras are located; and

providing the viewer over the internet with high resolution access to one of said video cameras and simultaneous low resolution access to the remainder of said video cameras.

13. A system for multiple camera broadcasting over the internet to a remote user video display comprising:

a feed from each video camera;

an encoder coupled to each feed providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over internet delivery channels to said remote user; and

5 front-end human interface (FHI) software interactively providing a high resolution video signal to at least one of the display windows and simultaneously one or more lower resolution video signals for plural smaller monitor displays on said remote user video display.

14. A system for multiple camera broadcasting over a communication  
10 infrastructure to a user display comprising:

a plurality of television content providers located at different venues throughout the world, each content provider having multiple video cameras already installed at a particular venue in use for commercial television broadcasting;

15 a parallel lead from each such installed video camera;

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over said communication infrastructure;

20 a streaming server coupled to said encoders; and

front-end human interface software stored at said streaming server, and available to a user over said communication infrastructure, said interface software interactively providing a high resolution video signal to at least one of the display windows of said user display and simultaneously one or more lower  
25 resolution video signals for plural smaller monitor displays on the user display.

15. A system for multiple camera broadcasting over a communication infrastructure to a user's display comprising:

a plurality of television content providers located at different venues throughout the world, each content provider having multiple video cameras  
30 already installed at a particular venue in use for commercial television broadcasting;

a parallel lead from each such installed video camera;

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over delivery channels of said communication infrastructure;

front-end human interface software interactively providing a high resolution video signal to at least one of the windows of said user display from said high bandwidth network and simultaneously one or more lower resolution video signals for plural smaller monitor displays on said user display from said high bandwidth network.

each user display adapted to simultaneously show the high resolution video output from at least one of said television content provider cameras and a plurality of lower resolution video outputs from a plurality of said television content provider cameras.

16. A system for multiple cameras broadcasting over a communication infrastructure to a user display comprising:

a television content provider having multiple video cameras already installed in several locations at a particular venue and in use for commercial television broadcasting;

a parallel lead from each such installed video camera; and

an encoder coupled to each parallel lead, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over said communication infrastructure to said user display.

17. The method for providing to a user display an athletic game, musical, theatrical or like event with simultaneous interactive access to all of the video cameras in use at said event comprising the steps of:

producing at least one high resolution and one low resolution signal from each of said video cameras compatible for delivery over communication delivery channels,

transmitting said low and high resolution video signals to said user display over said communications delivery channels, and

providing the user display with the interactive display of any of said high resolution signals to a larger display region of the user display and all of the plurality of low resolution signals for display on smaller monitor portions of the user display so that the user is simultaneously provided in substantially real time with the video outputs from all of said video cameras.

18. A display for providing a user with an interactive front-end human interface (FHI) for viewing a televised event from several different television camera angles;

a larger screen display for selectively viewing one televised signal in high resolution on said user display, and

a plurality of smaller screen displays for viewing the same event on a plurality of smaller low resolution displays on said user display.

19. A system for providing a user display with an interactive front-end human interface (FHI) for viewing a televised event from several different television camera angles;

a companion display provided on said display showing where said cameras are located; and

providing the viewer with high resolution access to one of said video cameras and simultaneous low resolution access to the remainder of said video cameras.

20. A system for multiple camera broadcasting over a communication infrastructure to a video display comprising:

a plurality of content providers located at different venues throughout the world, each content provider having multiple video cameras at a particular venue in use for private or commercial content broadcasting;

a parallel feed from each such installed video camera;

an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both



outputs being compatible with simultaneous delivery over said communication infrastructure channels;

a streaming server coupled to said encoders; and

front-end human interface (FHI) software stored at said streaming server, and available to a user over said communication infrastructure, said interface software interactively providing a high resolution video signal to at least one of the display windows and simultaneously one or more lower resolution video signals for plural smaller monitor displays on video display.

21. A system for multiple camera broadcasting over a communications infrastructure to a video display comprising:

a plurality of content providers located at different venues throughout the world, each content provider having multiple video cameras already installed at a particular venue in use for private or commercial broadcasting;

a parallel feed from each such installed video camera;

an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over delivery channels of said communications infrastructure;

a high bandwidth network coupled to said encoder and accessible over said communications infrastructure;

front-end human interface (FHI) software interactively providing a high resolution video signal to at least one display windows of said video display from said high bandwidth network and simultaneously one or more lower resolution video signals for plural smaller monitor displays on said video display from said high bandwidth network.

each video display adapted to simultaneously show the high resolution video output from at least one of said content provider cameras and a plurality of lower resolution video outputs from a plurality of said content provider cameras.

22. A system for multiple cameras broadcasting over a communication infrastructure comprising:

a television content provider having multiple video cameras already installed in several locations at a particular venue and in use for private or commercial broadcasting;

a parallel feed from each such installed video camera;

5 an encoder coupled to each parallel feed, each encoder providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over said communication infrastructure to a user video display.

23. The method for providing to a user's video display an athletic game,  
10 musical, theatrical or any live or recorded public or private event with simultaneous interactive access to all of the video cameras in use at said event comprising the steps of:

15 producing at least one high resolution and one low resolution signal from each of said video cameras compatible for delivery over communication delivery channels,

transmitting said low and high resolution video signals to the user's video display over communication delivery channels, and

20 providing the user's video display with the interactive display of any of said high resolution signals to a larger display region of the display and all of the plurality of low resolution signals for display on smaller monitor portions of the video display so that the user is simultaneously provided in substantially real time with the video outputs from all of said video cameras.

24. A video display for providing a user display with an interactive front-end human interface (FHI) for viewing from one or more different video camera angles;

25 a larger screen display for selectively viewing one video signal in high resolution on said video display, and

a plurality of smaller screen displays for viewing the same event on a plurality of smaller low resolution displays on said video display.

25. A video display for providing a user display with an interactive front-end  
30 human interface (FHI) for viewing a televised event from several different television camera angles;

a companion display provided on said display showing where said cameras are located; and

providing the viewer over a communication infrastructure with high resolution access to one of said video cameras and simultaneous low resolution access to the remainder of said video cameras.

26. A system for multiple camera broadcasting over a communication infrastructure to a remote user video display comprising:

a feed from each video camera;

an encoder coupled to each feed providing both at least one high resolution video output and a low resolution video output, both outputs being compatible with simultaneous delivery over delivery channels of said communication infrastructure to said remote user; and

front-end human interface (FHI) software interactively providing a high resolution video signal to at least one of the display windows of said user video display and simultaneously one or more lower resolution video signals for plural smaller monitor displays of said remote user video display.

27. An interactive entertainment system comprising:

a plurality of cameras configured to offer different camera views of an event occurring at a particular venue;

a back-end information network configured to receive camera outputs from the plurality of cameras, identify a consumer and associated display device, and dynamically assemble the camera outputs into a front-end version based on the consumer's preference and the display device's specifications;

a delivery infrastructure configured to transmit the front-end version to the consumer; and

an access device configured to receive the front-end version for display, wherein the consumer selectively views one of the camera views on a relatively larger screen window and views the remaining camera views on a plurality of relatively smaller screen windows.

28. The interactive entertainment system of Claim 27, wherein the back-end information network limits the number and type of camera views delivered to the consumer who elects not to pay for a pay-per-view event.

5 29. The interactive entertainment system of Claim 27, wherein the back-end information network matches advertisements to the consumer's profile, and the delivery infrastructure transmits the advertisements simultaneously with the front-end version to the consumer.

30. The interactive entertainment system of Claim 27, wherein the event is an athletic game.

10 31. The interactive entertainment system of Claim 27, wherein the delivery infrastructure is the Internet.

32. The interactive entertainment system of Claim 27, wherein the access device is a personal computer.

15 33. A user front-end human interface system comprising:  
a program stored in a back-end information network located at a remote location from the user;  
means for upgrading said program;  
an access device available to said user, said program being loaded onto said access device from said back-end information network each time the user connects to said system;  
20 a controllable entity connected to said access device;  
an information source connected to said access device;  
whereby said access device serves as a standalone control device to remotely control said controllable entity; and  
25 whereby said access device serves as a standalone access device to display information from said information source.

34. The user front-end human interface system of Claim 33, wherein said controllable entity is a home appliance.

35. The system of Claim 34, wherein said appliance is a video camera.

30 36. The system of Claim 35, wherein said appliance is a refrigerator.

37. The user front-end human interface system of Claim 33, wherein said information source includes a plurality of remote installed video cameras.

38. The user front-end human interface system of Claim 37, wherein said back-end information network provides a high bandwidth network and a plurality of lower bandwidth networks so that the user can interactively display the video signal in the high bandwidth network on a large high resolution video display and the video signals on the lower bandwidth network on smaller lower bandwidth video displays.

39. The system of Claim 33, wherein said access device is a DVD player.

40. The system of Claim 33, wherein said access device is a TV set top player.

41. The system of Claim 33, wherein said information source includes a source of textural information.

42. The system of Claim 41, wherein said source of textured information provides stock quotes.

43. The system of Claim 41, wherein said source of textural information is advertising.

44. the user front-end human interface system of Claim 33, wherein said software supports a plurality of multimedia formats.

45. The user front-end human interface system of Claim 33, wherein said system automatically identifies the information source and dynamically assembles said program.

46. The user front-end human interface system of Claim 33, wherein said program decodes a plurality of data codes so that the provider of said information source is free to choose, deploy, and mix a plurality of media platforms.

47. The user front-end human interface system of Claim 33, wherein said program provides multiple types of window objects such as onscreen, companion and monitor.

48. The user front-end human interface system of Claim 33, wherein said system dynamically assembles said program in response to the users preferences and the specifications of said access device.

49. A user front-end human interface system comprising:

a software program and plural information sources stored on a digital readable media member,

an access device for receiving said digital readable member, said access device utilizing said software program for interactively displaying said plurality of information sources,

whereby the user may interactively display on multiple monitor displays the information included in said plural information sources on said digital readable media member.

50. The system of Claim 49, wherein said plural information sources are television signals from multiple video cameras.

51. The system of Claim 48, wherein said digital readable storage media is a DVD disk.

52. The user front-end human interface system of Claim 49, wherein said information source stored on said digital readable member is an event viewed by a plurality of video cameras.

53. A method for converting a networked user access device to a standalone access device, comprising:

loading into said access device a plurality of programs stored in a back-end information network;

connecting said access device to an information source;

connecting said access device to a controllable entity;

interactively selecting information to be displayed on said access device from said information source using said programs previously loaded from said back-end information network; and

using said access device to selectively controlling said controllable entity using said programs previously loaded from said back-end information network.

54. A method for providing a networked user access device comprising:

loading into said access device a plurality of programs stored in a back-end information network;

connecting said access device to an information source;

connecting said access device to a controllable entity;

interactively selecting information to be displayed on said access source from said information source using said programs loaded from said back-end information network; and

5 using said access source to selectively controlling said controllable entity using said programs previously located from said back-end information network.

55. The method of Claim 54, comprising:

dynamically assembling said plurality of programs stored in said back-end information network in response to the users preferences and the specifications of said access device.

10 56. The method of Claim 54, comprising:

decoding a plurality of data codes.

57. A method for providing a networked user access device;

15 dynamically assembling a plurality of programs stored in a back-end information network in response to the users preferences and the specifications of said access device;

loading said assembled programs into said access device;

connecting said access source to an information source; and

20 selecting displaying information on said access source from said information source using said programs loaded from said back-end information network.